

:()

*

()

β
(GSIS)

:

()

II

-

(nSTZ)

Diabetes Mellitus and the Control of Cellular Energy Metabolism

*

Farzamib@sina.tums.ac.ir :

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// :
/ / :

[] (GSIS)

(EC. 2. 7.1.2)

[] GSIS

II []
[] (II) MODY-2

[]

[]

III II I

μM)

(Km =

(D IV)

(mM) Km (≈ KDa)

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[]

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[]

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[]

(GKRP)

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[]

[]

II

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[]

(nSTZ) II

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³ β-cell dysfunction

¹ Translocation

² Fuel Hypothesis

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+

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ELISA

DRG

mg/kg

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[]

()

-

Leuconostoc mesenteroides

NAD⁺ NADH

Kontes

g

glass

/

()

/

BSA

-

/

)

(

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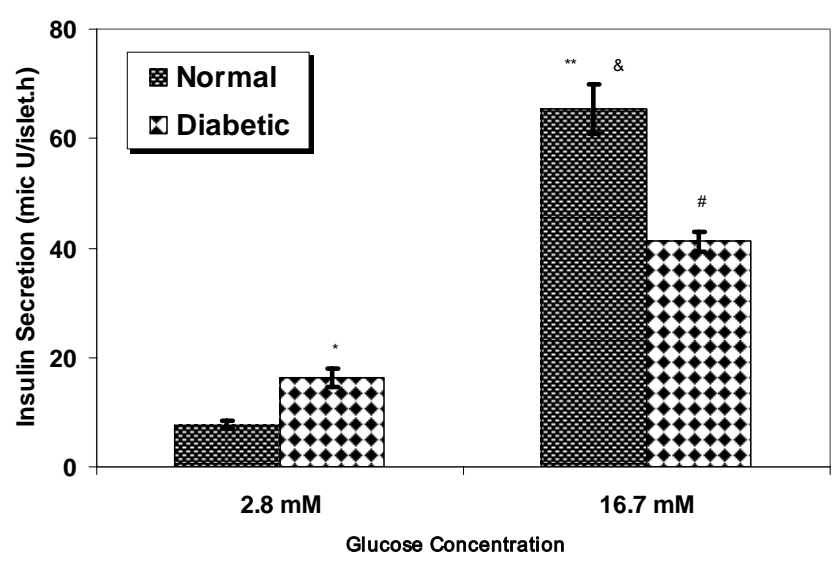
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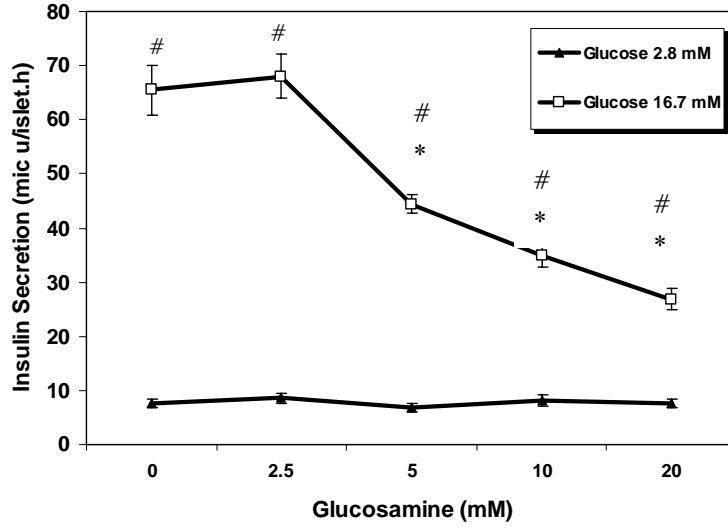
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¹ Rat

SPSS
 (Mean ± SE)
 P-Value
 ATP
 STZ
 ()
 STZ

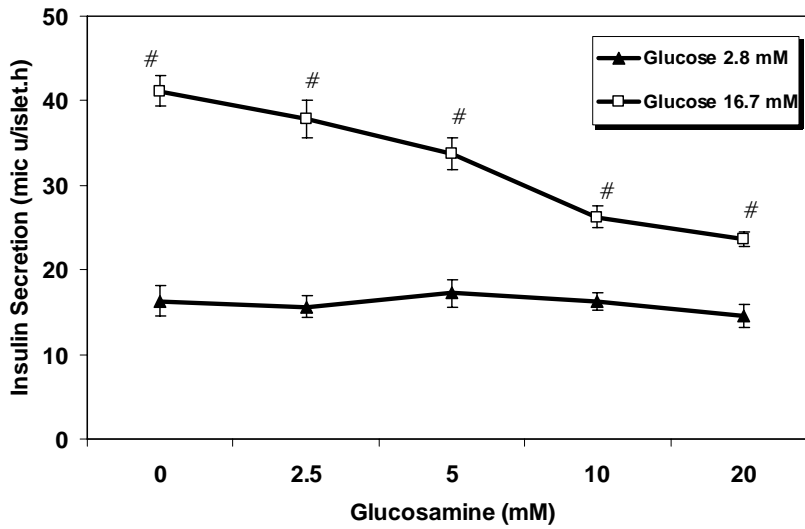


P< / **
 P< / *
 n =
 n =
 (Mean ± SE)
 P< / #



(GSIS)

* / + / P < / # . n = n = (Mean ± SE) (P < /)

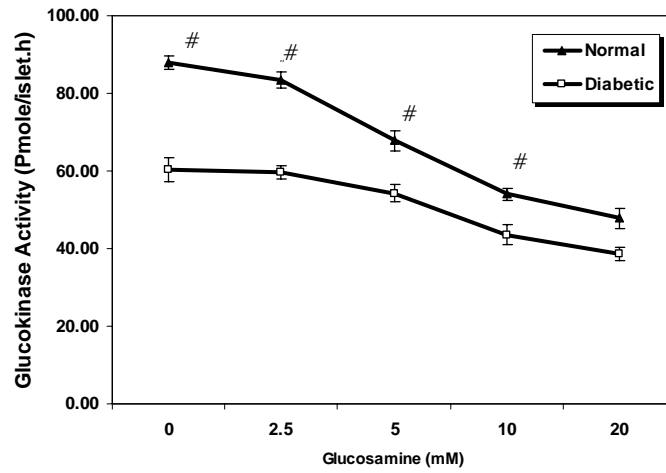


(GSIS)

+ / P < / # . n = n = (Mean ± SE)

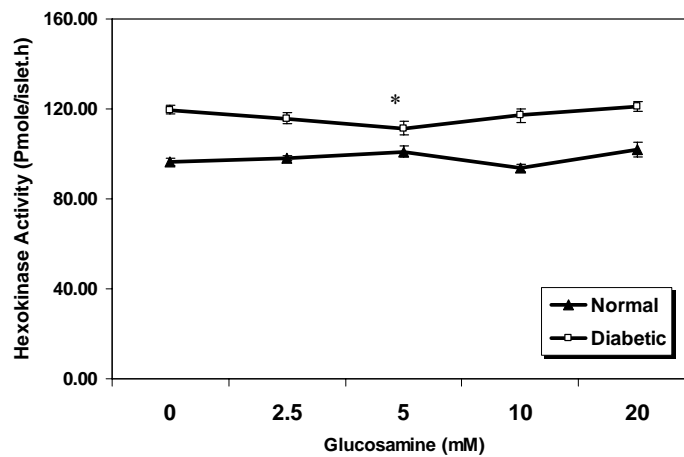
/ /

(/)
 / (P< /)
 (GSIS)
 /) (P< /)
 (P<
 r = /)
 . (r = / (P< /)



نمودار ۴- اثر غلظت‌های مختلف گلوکز آمین بر فعالیت گلوکوکیناز پانکراس در موش‌های صحرایی سالم و دیابتی

(P< /) # n = n = (Mean ± SE)



نمودار ۵- اثر غلظت‌های مختلف گلوکز آمین بر فعالیت هگزوکیناز پانکراس در موش‌های صحرایی سالم و دیابتی

(Mean ± SE) * n = n = (P> /)

()

/

(P< /)

r = /)

)
(

(r = /

(P< /)

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[] []

[]

()

(P< /)

[]

(GSIS)

/

[]

()

GSIS

[]

II

GSIS

]

[]

[

II

()

/

(II) nSTZ

[]

[] []

()

[] []

[]

/

(GSIS)

[/]

[]

) (

[]

II

[] .(

GSIS

[] []

[]

[] []

[]

¹ Dose-dependent

()

)

(NIDDM=II

GSIS

.[]

Overexpression

GKRP

.[]

Km

.[]

()

.[]

[]

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